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SUPPLEMENT

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CHARCOT CENTENNIAL ANNIVERSARY

On November 24, 1925, an address upon "Mementoes of Charcot and the Salpêtrière" was delivered before the Section of Historical and Cultural Medicine of the New York Academy of Medicine by Lt. Col. Fielding H. Garrison and in the November number of the Bulletin appeared an article by him on the Charcot Centenary. The Section of Neurology and Psychiatry held a meeting on December 8th, devoted to the Charcot Centennial Anniversary, the program of which had been arranged in cooperation with the New York Neurological Society. A committee of the Academy decided that it would be very fitting to publish all these papers together in the form of a supplement to the Bulletin and that this supplement should contain a list of the books and pictures illustrating the life and work of Charcot which were displayed in the Academy at the time.

JEAN MARTIN CHARCOT

- 1825. Born in Paris, November 25th.
- 1844. Began the study of medicine.
- 1848-1852. Interne to Piorry at the Salpêtrière.
- 1853. Graduated M.D.; thesis on gout and chronic rheumatism. Became Rayer's chief of clinics.
- 1856. Appointed physician to the *Bureau central des hôpitaux*.
- 1860. Won his *concours*. Took over with Vulpian the medical service at the Salpêtrière. *Archives médicales* of the Salpêtrière.
- 1872. Succeeded Vulpian as professor of pathological anatomy. Elected member of the Académie de Médecine.
- 1874. Elected corresponding member of the New York Society of Neurology and Electrology.
- 1880. Elected corresponding member of The New York Academy of Medicine.
- 1882. A clinical chair of diseases of the nervous system created for him at the Salpêtrière.
- 1883. Elected member of the Institut de France.
- 1893. Died suddenly of angina pectoris, August 16th. Buried in Montmartre cemetery.

CHIEF WORKS

- 1867. Monograph on the diseases of old age.
- 1877. Monographs on the diseases of the lungs, liver and kidneys.
- 1870-1891. Studies of major hysteria and hypnotism.
- 1872-1873. "Clinical Lectures on Nervous Disease."
- 1876-1880. With Pitres, "Lessons on Localization of Function in Diseases of the Brain and Spinal Cord."
- 1887. Iconographic albums on "Demonomania in Art."
- 1889. "The Diseased and Deformed in Art."
- 1887-1889. Stenographic reports of his far-famed Tuesday Lectures edited by Blin, Colin, and Jean Charcot.
- 1887-1890. Publication of nine volumes of a prospective collective edition of fifteen volumes.

THE CHARCOT CENTENARY

(November 25, 1925)

The year 1825 was fairly remarkable in the history of medicine. About one hundred years ago, the Weber brothers began certain fundamental investigations which were the starting point of psychophysics and published their classic on wave motion, which obliterated Bichat's theory that the pulse is synchronous in all the arteries. Purkinje completed his investigations on the subjective phenomena of vision and discovered the germinal vesicle. Louis published his classic on phthisis, in which medical statistics were employed for the first time as a method of investigation. Bouillaud described aphasia and Matthew Baillie first noted floating kidney. Dumas isolated menthol. Nobili invented his astatic galvanometer. Copeland introduced the exhibition of potassium iodide in syphilis. Croton oil was introduced by the apothecary Short. Airy first employed spherical cylinders for astigmatism and Fuchs devised a means of avoiding fires in theaters by coating the woodwork with soluble water glass or with sodium wolframite. In this year, too, Charcot, Huxley, Max Schultze and Henry Gray were born. The centric event of medical moment was therefore the birth, on November 25, 1825, of Jean Martin Charcot, the greatest neuro-pathologist of France and, whether as consultant or teacher, unquestionably the greatest physician of his time.

The son of a carriage-maker, who permitted the most studious of his children to follow medicine, Charcot, after his graduation in 1853, experienced some difficulty in winning his *concours*, in other words his right to teach medicine in the Faculty. He was no orator, no match for the facile rhetoricians who were his competitors, and it was only through his masterly discussion of his opponent's thesis that he won his spurs. This bout revealed, in fact, a knowledge of the foreign literature of medicine surprising in a young student and almost unequalled in France, where German literature was taboo. Expertise of this kind could have but one outcome. In 1862, Charcot took over the service of the Salpêtrière, where he had served as interne, and at that time

officially an almshouse for old women, a somewhat shabby group of buildings at the extreme east end of Paris, containing no less than 5,000 inmates. As interne, Charcot had been early impressed with this motley collection of mal-assorted diseases of all kinds, which he saw at once as a mine of neurological material like nothing else in the world. The way in which he transformed this "pandemonium of infirmities" as he called it, into a well ordered neurological clinic of vast dimensions is the most fascinating episode in the history of clinical medicine. He began by sorting out the gouty and rheumatic patients, the febrile and neurotic disorders of old age, and, in connection with his incumbency of the chair of pathology (1872-82) made masterly and memorable studies of the diseases of the liver, the kidneys and the lungs (1877). That the chair of pathology in the Paris Faculty should have been held by three neurologists—Vulpian, Charcot, and Marie—has been the subject of much pleasantry. When Marie succeeded Victor Cornil in 1908, Osler said it was "very much as if Allan Starr or Dana were selected as successor to Prudden." But as Strümpell, in his beautiful eulogy of Charcot, has said, "no one could be a neurologist, in this early formative period, without being also a pathologist." And Charcot was the greatest of neuro-pathologists. Strümpell shows, by many instances, how Charcot's work on localization of functions of the brain and cord, *viâ* clinical and post mortem findings, did more for the subject than physiological experimentation, which was still haphazard and tentative. Amyotropic lateral sclerosis, which the Germans call Charcot's disease, was the first recorded instance of a lesion affecting an entire tract of nerve-fiber, from cerebro-spinal axis to muscle. Charcot also was the first to describe the multiplex semeiology of hysteria, thus separating it from epilepsy and insanity. Later in life, he first stressed the fact that, in these "major neuroses," a psychic trauma may play the same part as a pathological lesion. Freud, on his own showing, got from Charcot his idea of a psycho-sexual trauma as the momentum of energy or of inertia in the psycho-neuroses. But there is hardly a phase of modern neurology in which the great master of the Salpêtrière was not a pioneer. In

his public consultations and lectures, Charcot was, with the possible exception of Trousseau, the greatest teacher of clinical medicine of his time. Osler, coming later as a junior, ran him an easy second. In order to get the complex semeiology of nervous disorders into the heads of his auditors, Charcot deliberately dramatized and visualized the essential features by demonstrations on a miniature stage, with footlights, upon which he himself mimicked, in a way never before realized, the various attitudes, gaits, tremors, tics, spastic phenomena and other motor and sensory disorders of the neurotic, the typical pathological lesion in each case being thrown upon a screen after the exhibition of the patient. The various imputations to the effect that he was theatrical, that he cared more for the disease than the patient, that he neglected treatment, that he subjected hysterical patients to strenuous tests under hypnotism, were of course, solemn nonsense, dictated by the malice of enemies, usually disgruntled colleagues whose clinics were not so largely attended. Charcot was actually regarded as "timid" by his intimates, a Gallic way of saying that he had a supersensitive nervous system concealed under a cold, impassive manner. Youthful likenesses suggest an illustration to Balzac. He looks like Napoleon at Brienne or Rastignac about to make war upon a hostile world ("*a nous deux maintenant*"). That he consciously schooled himself, by iron self-control, to be the great beneficent personality he was, reveals the real trend of his character. The bitter twist about the mouth, the sad, penetrating eyes, tell of the fierce, inner struggle for self-mastery. Charcot really loathed oratory and other theatric tricks. His private and public life, that of a Benedictine, goes to show that he was a determined enemy of banal publicity, public demonstrations and superfluous fuss and feathers of all kinds. His voice was distinct but low, his audiences the largest of any clinic in Europe, hence he had to employ mimicry and "object teaching" to get his ideas across to his pupils. His apparent interest in the disease rather than the patient was due to his intense passion for thoroughness in investigation, was often set off by a compassionate, sympathetic manner on occasion, and that his treatment was effective, where

humanly possible, was evidenced by the great armies of patients who flocked to him from the five continents of the globe, seeking relief from their sufferings. Toward the end of his life, he stressed his views on the therapeutic device of setting the mind to repair its own troubles in "*La foi qui guérit*," which sums up all that is known of psychotherapy and healing by faith.

Charcot was happily married to a lady of wealth, whose devotion extended even to assisting and forwarding his literary productions. In his beautiful home in the Boulevard St. Germain and his summer home at Neuilly, he was an entirely different person from the cold, impersonal, impassive chief of Napoleonic mien, who dominated every nook and corner of the Salpêtrière. In the bosom of his family, among his friends and beloved pupils, the natural goodness and amiability of the man asserted itself in the most charming way, even to the extent of participating in the harmless hoaxes which were seemingly put over on the grave professor. From his father, he had inherited or acquired a passionate love of art, and the upholstery, bibelots and paintings in his domicile, chosen by his wife, were famous in the Paris of those days. Charcot, indeed, created the study of medicine in the fine arts, classifying the nervous diseases depicted by the Dutch and Italian painters with the same power of arrangement and coördination which he applied to the thousands of patients in his great hospital. In spite of his intense love of home and privacy, an expression of his innate loathing of vulgarity and vain show, he usually devoted his vacation to traveling, and knew the museums and art collections of Europe better than most connoisseurs. On one of these expeditions he died suddenly of heart failure with pulmonary oedema, in an inn by the lake of Settons (Nièvre) on August 16, 1893. Due to this insidious disease, the life of the great quietist, at home and in hospital, had been so exclusively sedentary that it was said that he never knew how to walk because he had never really learned. A pathetic detail is to the effect that this sensitive, silent man, who had never harmed a single human being in his life, was tormented through his later years by satanic anonymous letters, predicting that he would die shortly of cerebral haemorrhage.

It has been well said that the French do their duty by their great men, even to the extent of naming their streets after their great physicians. Yet, while there are many statues of Charcot in France, an extended biographical study, such as Vallery-Radot achieved for Pasteur, or Paul Triaire for Bretonneau and Larrey, remains to be written. The ceremonies in honor of his centenary at the Paris Academy of Medicine and the Sorbonne on May 26 and 27, 1925, were grave, moving and impressive, attended by physicians from seventeen different countries, and supported by the government. The eulogies were pronounced by his old pupils, Marie and Babinski, followed by reminiscences and appreciations by the younger generation. To read the countless tributes from all lands following his death and during the present year, is to realize that Charcot was not only the greatest physician of France, but, in relation to his period, of the whole world.

F. H. GARRISON

SYMPOSIUM DEVOTED TO CHARCOT

CHARCOT AND THE SALPÊTRIÈRE. LANTERN SLIDES AND EXHIBITS

Lt. Col. F. H. GARRISON, Washington, D. C. (by invitation).

(*Author's abstract*)

Slides were shown exhibiting

1. Photographs of Charcot taken in 1860 (aet. 35), 1863, 1872, 1878 and later. Also the medallion by Paul Richer, the humorous drawing by Paul Renouard, and a portrait of Charcot in the robes of the Paris Medical Faculty.

2. Drawings made by Charcot himself, *viz.*, a caricature of himself and his colleagues of the Paris Faculty in Indian file, and sketch of a patient afflicted with paralysis agitans. Specimens of porcelain decorated by Charcot.

3. Two views of the Salpêtrière.

4. Picture of Duchenne of Boulogne, whom Charcot regarded as his master in neurology.

5. Pictures of typical hysterical patients at the Salpêtrière.

6. Photographs from the old *Iconographie photographique de la Salpêtrière* (1877-1880), showing the passional ecstatic and cataleptic attitudes which characterized the "major hysteria" of this period. Charcot demonstrated and classified the same symptoms in paintings and drawings of the 16th and 17th centuries, representing the "possessed" (demonomania). They are also displayed in the bacchantic postures of Maenads and Corybantes on Greek vases and bas-reliefs.

7. Photographs from the *Nouvelle Iconographie* (1888-1916) showing the facies in exophthalmic goitre, acromegaly, hereditary ataxia (Friedreich) and the muscular dystrophies (the myopathic or amyotrophic face of Marie and Richer); the attitudes and deformations in poliomyelitis, primary lateral sclerosis (spastic paralysis in children), acromegaly (the succulent hand), and paralysis agitans (statue by Paul Richer); also the physical habitus in chronic hereditary trophoedema (Henri Meigs) and a

group of statuary of Paul Richer, showing the physical habitus of women in classical antiquity, the early Renaissance period and modern times. An attempt was made to present Charcot as an exemplar of the straight Hippocratic trend in medicine (*i.e.*, spontaneous approach to clinical problems without preconceived hypotheses) as contrasted with the tendency toward Galenism (superimposition of arbitrary hypotheses upon disparate or seemingly unrelated facts) manifest in the later writings of his pupil Freud. In the later phases of Freudian doctrine, sex is stressed too much, sometimes to the exclusion of equally potent passions, *e.g.*, anger, envy, hatred, revenge, avarice, grief, fear, and other moments of inertia depicted by poets, novelists and observers of human nature generally (*i.e.*, the line taken is not as broad and inclusive as that of Descartes in *Les passions de l'âme*). Freud's Leonardo study of 1916 is a case in point. Leonardo was a splendid keen-sighted Lombard Italian, handsome, gay and popular in youth, and very like Willibald Pirckheimer, Albrecht Dürer, Lucas Cranach and other doughty humanists of the time, in old age. During the four centuries elapsing since Leonardo's death, no one ever dreamed of saying anything against this great artist, who never sought the lime-light of publicity. What Freud intimated seems unthinkable, and, were Leonardo alive to-day, might be regarded as actionable, in the Pickwickian sense in which Stendhal once brought suit against a man for "attempting his life," *i.e.*, for boring him to death. In like manner, the publication in popular magazines of pictures of Robert Schumann as an example of the pycnic, cyclothymic, or manic-depressive type seems a desecration of the fair fame of the well-beloved composer, as well as a degradation of the "art and mystery" of medicine. The author's bibliographical account of Charcot is published in *Internat. Clinics, Phila.*, 1925, iv, 244-272.

CHARCOT, THE HYPNOTIST AND DIAGNOSTICIAN

By BERNARD SACHS, M.D.

I regret that the program reads "The Hypnotist and Diagnostician." I very much wish to have that reversed. Charcot was above all things a great diagnostician. I think I can fulfill the purpose of the evening best if I give you some personal impressions of Charcot as a teacher at the time that he was at the zenith of his scientific career. Dr. Starr and I are the only ones in this room old enough to claim that they were students under Charcot. Starr and I sat together on the benches under Meynert, and Freud was our neighbor. I got to Paris in the spring of 1883; Dr. Starr was a little ahead of me. Let me recall to your minds that at that time the guiding spirits so far as neurology was concerned, in Germany, were Leyden, Erb, Struempell, Flechsig, Nothnagel, and Wernicke. In Great Britain, Hughlings Jackson, Byrom Bramwell and Ferrier were the luminaries. In America the names of Weir Mitchell, of Beard, of the elder Hammond, of Seguin were known to all. In France there was only one name that dominated the entire field of neurology, and yet Charcot was surrounded by a brilliant group of younger men. During the years from 1880 to 1893 in France there was not a book published on any neurological subject that was not either dedicated to "Mon Maitre, Charcot," or written at the inspiration of Charcot. The pre-eminence which Charcot enjoyed at that time was deserved, if ever any man deserved to be the master of an entire science. Coming from the laboratory of Meynert, great anatomist as he was, but a rather poor teacher, it was a privilege to sit at the feet of a man like Charcot, who was the most inspiring of clinical teachers. He had a way of making the most uninteresting fact in medicine interesting. I can recall his Napoleonic head, his classical features, his beautiful hair; there he sat during a lecture surrounded by his group of assistants. A good many of the men who had graduated from the clinic itself continued to attend almost every clinic that Charcot held, and particularly those famous Tuesday morning ones. A foreign student was admitted to the clinic without trouble, and

easily fell in with the group of men from every corner of the globe who were content to listen to the oracle. At the time I went to Charcot for instruction in neurology, he was the great exponent of the organic side. Like most of the neurologists of that time he was graduated from the ranks of the internists and the pathologists. The work for which Charcot was already famous was that on tabes and on the amyotrophies, on the progressive muscular dystrophies, on disseminated sclerosis. The differential diagnosis between paralysis agitans and disseminated sclerosis was due to his clinical acumen. Then there was his work on poliomyelitis, on myelitis, and above all, the subject that so many of us were interested in, the work on cerebral localization.

I can remember one special occurrence, and it was this I had in mind when I said I was going to speak of Charcot as a diagnostician. While discoursing on cerebral localization he brought in a patient who had been a chief flutist in one of the Paris orchestras. He presented the man to show the loss of one special function. The patient said the reason he came to consult Charcot was because he could no longer pout his lips in such a way that he was able to produce a perfectly pure note on the flute. Charcot said it was the finest example of localization of function that we could possibly have. He said, "But it is not due to any cortical trouble, such as you have been thinking of. That man has no tumor. That is the first stage of a general paresis. It is this man's most highly specialized function, and it is the first to go." It was by that method of clinical contrasts that he had a way of impressing his students and of making his lectures dramatic to a degree.

I can also bear witness to the fact that during the year I was there hypnotism did not play the role that it was supposed to have done in Charcot's clinic. Before referring to hypnotism, it is necessary to speak of the work on hysteria. When we, as students, went to Charcot to study hysteria, we went there under the impression that it was a very marvelous thing that a man who had all his life devoted his time to organic neurology should begin to devote himself to the neuroses. I remember his pre-

senting some extraordinarily interesting cases of hysteria. Charcot, however, was bent upon finding the analogy between hysteria and organic disease. It may seem queer to us at this day that whenever he spoke of hysterical hemianesthesia he was constantly trying to find what actually happened in the brain to bring about such a condition. In his lectures on hemianesthesia he finally stated that he does not know what the underlying changes are. We were under the impression as students under Kussmaul and Leyden that there was something strange about the occurrences in Charcot's hysteria wards. Everyone had doubts as to whether the thing was not manufactured in Paris for special French use. It is perfectly true that the things seen at the Salpêtrière were not to be seen anywhere else. I remember the following incident: it was after one of his lectures on hysteria that the entire class was taken up into one of the small wards, in which there were twelve or fifteen female patients. There were some of the students on one side, and the assistants on the other, and it happened that a passage was made for Charcot to pass through the middle. The moment that he was seen by the patients in that ward, the entire ward fell into a hypnotic state, every patient presenting some form of hypnotic trance. In some of the universities in Germany it was said that such occurrences were all prepared, and that Charcot trained his material so that they did anything he pleased. Charcot at that time was aware of the fact that there was no deception about this, but his personality and his relation to the patients were such that his appearance acted as a powerful suggestion, and the hypnotic state was the result of this powerful suggestion. Charcot tried in every instance to reveal the cause of the hysteria. One of the most interesting cases he has ever published is an entire chapter, or perhaps two, on hysterical anuria. He proves conclusively, even to the reader of the present day, that there is such a condition as hysterical anuria. His argument shows that in studying hysteria he was chiefly interested in determining what brought about the hysteria. The original psychic shock in the case of hysterical anuria was experienced at the time when this patient had fallen into an open fire; from this time on she de-

veloped the hysterical complications. The whole subject of hysteria was treated by him in such a purely scientific manner in its relationship to organic disease that we can well afford to accept many of the explanations that Charcot gave us of these hysterical phenomena. There is only one circumstance that challenges criticism. Many of the patients were detained for ten to twenty years at the Salpêtrière. Evidently in the majority of cases no serious attempt was made to cure them. This was surely due to the fact that Charcot and his followers wished to retain them as good clinical material for teaching.

Let me add just one word that is true not only of Charcot and his influence as a teacher, but is also true of the entire French manner of handling the subject of neurological education. Pierre Marie at this day, who is a most delightful successor to Charcot, sees every patient in person in the outpatient department. There is much more to learn about nervous disease from outpatient work than from hospital work. That is also true of a good many other diseases. The man who studies heart disease in a hospital ward will not learn as much of the origin of the heart disease as the man who sees dozens of early cases in the outdoor clinic. The importance attached to the outpatient work in France is accentuated in the neurological education, and I think we can well afford to emulate that example by making the outpatient neurological department an integral part of the Hospital Division.

The Neurological Society and the Neurological Section of the New York Academy of Medicine have done well in realizing the services rendered by Charcot and in doing reverence to the memory of the greatest master mind in neurology.

DISCUSSION

Dr. M. Allen Starr described the famous Tuesday morning lectures, which were held in a long, narrow hall with benches rising from the floor. After the audience had gathered on these benches, the side windows were closed by shutters so that the room was in complete darkness. There was a stage at one end, and the footlights were turned on. Charcot entered from the

side with a number of his assistants, and seated himself at a little table which did not face the audience, but faced across toward the stage. Then an assistant brought the patient in and placed him in front of the footlights, and the calcium light from the other side was flashed upon him, so that he was the center of the only light in the room. Then Charcot began to discuss the case, to read the history, and the students could see everything that he wanted them to see. If it was a case of shaking palsy it was put in the limelight, and pretty soon other cases of tremor were brought in and placed along the footlights so that we could see the different kinds of tremor. The patients were then ushered out and the footlights put out, and then lantern slides were flashed on the screen to show the lesion, so that the symptomatology, diagnosis, and the lesion were all before the students. That was a dramatic clinic. Some people criticized it as being too dramatic, but after all, it taught the student, and that after all is the object of teaching.

CHARCOT

ART AND SEMEIOLOGY

By CHARLES L. DANA, M.D.

I never studied under Charcot, but I had the satisfaction of meeting him once during his later years. I had a letter to him from Dr. Seguin, I presented this, I was graciously received and introduced to one of the assistants who took me about the wards of Salpêtrière. I was at that time much interested in exophthalmic goitre and thought I had a new and special symptom, *viz.*, a marked deficiency in chest expansion. I was shown several cases and tried to demonstrate, indeed did demonstrate the symptom with my pocket tape. It made not the slightest impression on my neurological guide. I did not quite understand this lack of interest then, but I can understand now that no observation was considered then of any clinical value if it did not come from or through Charcot.



FIG. 1. "Les Pierres de Tête," by Jan Steen. (From the Nouv. Iconogr. de la Salpêtrière.)

M. Léon Daudet* has an interesting account of this dominance of Charcot in his essay on the Master entitled, "Le Professor Charcot, ou Le Césarisme de la Faculté." For forty years, says Daudet, the French Medical School lived in the radiance of Charcot's great name and under the despotism of this great figure. Not a professor was nominated, not a hospital appointment made, not a gold medal given unless it was agreeable to Charcot.

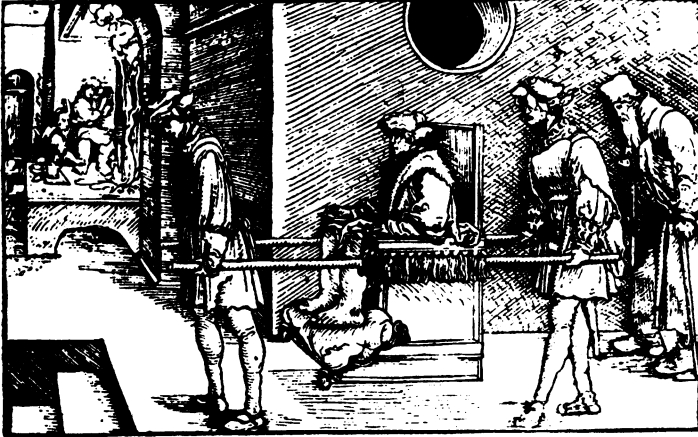


FIG. 2. Transporting the Sick (17th century), after Burgkmair. (From the *Nouv. Iconogr. de la Salpêtrière*.)

Daudet follows up the above assertions, however, by explaining it as due to the remarkable mental and professional equipment of this medical Caesar. In every line that he pursued he did the best possible kind of work. All this has been emphasized by other contributors. I am not dilating on it, but pass to a topic that particularly interests me in connection with Charcot.

One of the outstanding features of Charcot's character and life was his fondness for the Arts. He possessed a familiarity with all that was best in sculpture, painting, engraving and even in letters. While Charcot was not a great artist himself, he was a great collector and a stimulator of other collectors along varied lines.

* *Les Oeuvres dans Les Hommes*, Paris, 1922.

It is to one particular phase of his artistic taste that I am calling attention. Charcot and his pupils noted that many of the great artists of Europe had, in their paintings, or sketches, depicted various forms or striking symptoms of disease. Pursuing this line of interest, Charcot himself and working through pupils ransacked the art galleries and museums of all Europe seeking in their masterpieces portraiture of disease. Photographs of these paintings were reproduced in the pages of the *Nouvelle Iconographie de la Salpêtrière*. I happened to be a subscriber at the time and I tore out the pictures, some forty in all, and wish to show some of them in connection with these remarks. Among the artist authors of these pictures are Albrecht Dürer, Della Robbia, Rembrandt, Rubens, Velasquez, Teniers Jr., Brueghel and many important Dutch and Austrian artists.

Incidentally this collection was distinctly educational in many ways for it brought to common view representations of pictures from remote and often inaccessible galleries.

The works shown also gave an idea of the surgery of the 16th and 17th centuries, of hospital interiors and of more or less prevalent surgical and medical conditions in those periods. Methods of bleeding, cutting for wens ("stones in the head"), leprosy, scrofula, the plague, hysteria, religious healing, pulse-taking, blindness, mesmerism, are among the conditions noted in the collection. See the three figures.

Of the pictures thus obtained, perhaps a few could be reproduced in a printed article.* I feel personally a sense of real admiration and gratitude for this minor but unique and educative contribution of Charcot to semeiology in art and to culture in general.

DISCUSSION

Dr. Charles L. Dana, who, because of illness was unable to be present, sent to the Academy a very large collection of pictures for projection which Dr. Smith Ely Jelliffe discussed extemporaneously. Dr. Jelliffe said he had the pleasure of listening to Charcot in 1891 in the same lecture room Dr. Starr had so well

* Through the kindness of Dr. Jelliffe the pictures were all shown with a reflectoscope.

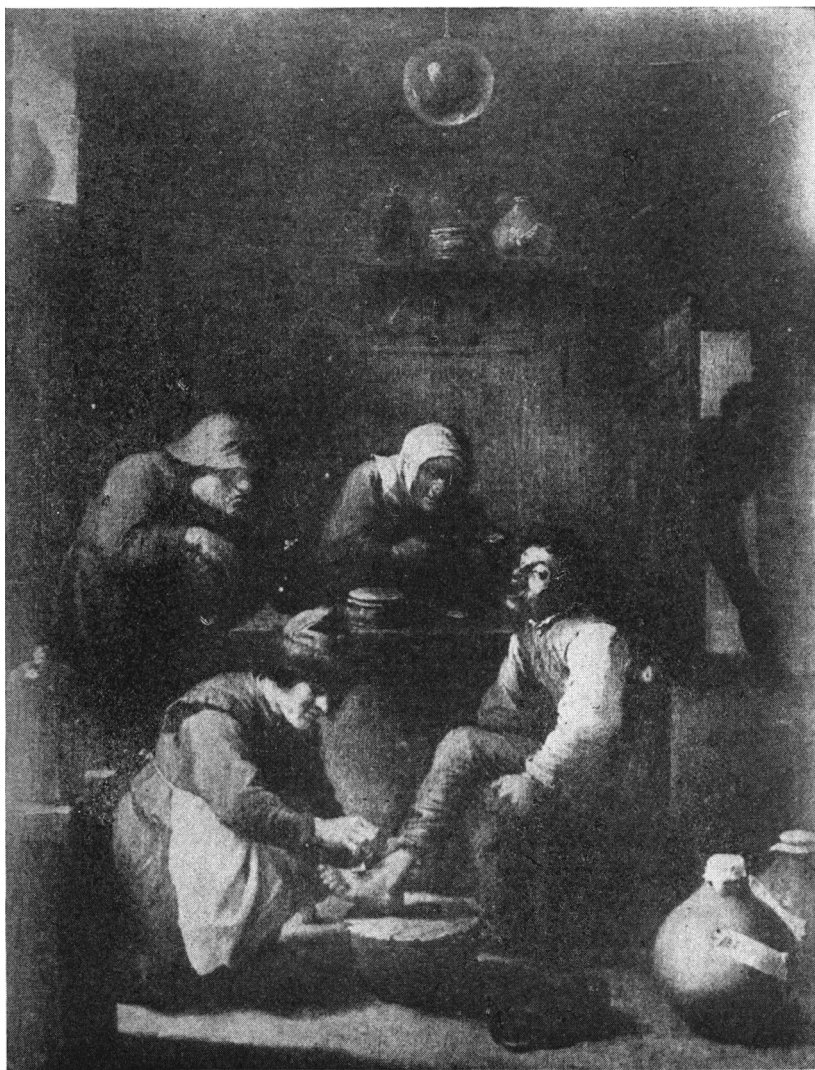


FIG. 3. "Le Pédicure," after Adrien Brauwer. (From the *Nouv. Iconogr. de la Salpêtrière.*)

described, and also had known personally all of the successors to the chair after Charcot's death: Brissaud, who served for a year only; Raymond, who from 1894 to 1910 was his successor. He had spent six months with Dejerine who served from 1910 to 1917, and had first met the next incumbent, Pierre Marie, in 1904 at the Bicêtre. Professor Marie was professor from 1917 to 1923, and was followed by Georges Guillaumin, whom many of the neurologists of this country knew, since he had visited the United States and participated in a meeting of the American Neurological Society.

Dr. Jelliffe then made a series of running comments, assisted by the audience, principally Lt. Col. Garrison, upon a large collection of pictures which Charcot had gathered together illustrative of a great variety of facial contortions, bodily postures, etc., which showed the influence of the emotions upon bodily movement. As Sherrington has reminded us, "emote" is the root of the word, meaning that bodily movement is but an emoting of feeling. The popular folksong "Every little movement has a feeling all its own" perhaps contained more science than one was apt to attribute to it. The studies of Darwin on the "Expression of the Emotions in Man and Animals," and that of Hughes on "Mimicry in Man," were alluded to as classical texts, and Dr. Jelliffe made comments upon the pictures which were gathered from the works of the early Flemish and Dutch masters, from sculpture in wood and stone, and from the works of the German, French, and Italian schools. Some of the neck, position and "stellreflexe" described by Magnus and Klein were alluded to as illustrated, and certain psychotic, catatonic and other attitudes were related to the psychological states which permitted such emoting.

Inasmuch as Dr. Jelliffe had not seen the pictures, nor had any word from Dr. Dana, he expressed the wish that his remarks, serious as well as facetious, should not reflect upon Dr. Dana's presentation. Dr. Dana's absence he felt was a great loss, and he did what he could as a "pinch hitter."

MEMORIAL OF PROFESSOR JEAN-MARIE CHARCOT*

By M. ALLEN STARR, M.D., LL.D., Sc.D.

This is a unique occasion. That medical men in France and England and in the United States, independently of one another, should assemble for the purpose of celebrating the centenary of the birth of a medical man is an event without precedent in medical history. It could have taken place only had the object, of this regard been a man of outstanding prominence, a scientist of high eminence, a teacher of great power, a leader in investigation and research, and one whose inspiration stimulated effort in his entire profession.

And these were the characteristics of Charcot.

Charcot was born in Paris on the 29th of November, 1825. He was the son of a wagon-maker, a man of such limited means that he was not able to give all his children an education. Jean-Marie, however, showed so much ability in school that he was selected from among his brothers as the most promising member of the family, and, while one brother was enlisted as a soldier and another put to work in the father's shop, he was allowed to enter the Lycée St. Louis, at that time the best academy in Paris. After his preliminary education was completed there, the choice of the medical profession was made with some hesitation, for the inclination of the young man was for the life of an artist, and his ambition in this direction had been increased by a journey to Italy and a residence there of several months. This love of art persisted in after-life, as was well known to those who visited his home of late years, where he had gathered many treasures of art. It was probably the lack of means that finally determined him to take up medicine. After passing through the medical school and serving as an interne in La Salpêtrière—an almshouse for old women, then almost unknown, but later to become famous as the theatre of his wonderful activity—he took his doctorate degree in 1853.

*Reprinted, by permission, from the *Boston Medical and Surgical Journal*, 1926, Vol. 194, pp. 10-14.

For the next three years he served as chief of the medical clinic in the medical school, supporting himself meantime by giving private tuition. He was then appointed physician to the Central Bureau of Paris, with a moderate salary, his duties being to examine applicants for the hospitals and to assign them to the proper services. While filling this position and slowly making his way, he was not idle, but was preparing for that competitive examination to which ambition for success leads every young physician in Paris.

It is to be remembered that hospital appointments in France are under governmental control, and that as fast as vacancies upon the attending staff of hospitals occur, they are filled by the appointment of men who have qualified themselves for these positions by passing a very rigid examination, by presenting theses, and on occasion defending in public debate the positions taken in the theses. Charcot succeeded in passing this examination in 1860, at his second trial, and it is said that he always supposed that he owed his success to his ability in defending the points made in his thesis upon chronic ulcerative pneumonia, which were ruthlessly questioned and criticised by his examiners. One of his biographers states that it was the wonderful familiarity with the literature of his subject which really impressed the examiners, who were amazed at the long bibliography attached to his thesis. In this respect it may be noticed that his articles always excelled those of other French writers, Charcot never ignoring, as they often do, the work done by other men in other lands.

Having qualified for a position as attending physician to a hospital, Charcot was able to select in 1862 the service at his old hospital, La Salpêtrière. He found a large number of old people collected together in this poorhouse, and among them many with chronic incurable diseases. He had opportunities to watch the progress of disease, both acute and chronic, in old age, and, most important of all, he had unlimited pathological material to supplement his clinical observations. It is to this latter fact that he owed the beginning of his reputation.

In order to appreciate the originality and merit of Charcot's work, it is necessary to recall the state of medical knowledge in 1872, when he succeeded Vulpian in the Chair of Pathology at the Sorbonne.

Microscopical investigation had just begun, with instruments which to our modern views were crude and inadequate. The researches of Charcot, which followed one another in quick succession, on the pathology of the lungs, liver, kidneys and nervous system were novel and most important. They established his position as the leading pathologist of France, and while it is true that in the light of modern pathology they seem imperfect, yet it must be remembered that all scientific advance proceeds step by step and that the early work is essential to the later progress.

Charcot's pathological investigations of the nervous system were also new and most important, and are of value even to-day. It must be recalled that in 1872 very little was known about the brain and spinal cord and that nervous diseases were not understood. Myelitis, anterior poliomyelitis and locomotor ataxia are the only cord diseases named in text-books in 1875. In fact it was not until 1882 that a professorship of neurology was established in the École de Médecine, when Charcot's investigations so directed attention to this department of medicine that it became imperative to found a Chair in the Faculty. This was done by Gambetta, then president of France, a personal friend of Charcot. It was natural that he should be appointed the first professor in that Chair. And from that date his energies were directed exclusively to the investigation of nervous diseases.

For the next ten years the attention of the entire medical world was focussed upon neurology. The discoveries of the localization of brain functions, founded on the work of Fritsch and Hitzig, Ferrier, Nothnagel and Charcot, proceeded in every country, each adding its quota to the sum of knowledge, and its practical result in opening the field of surgery to the brain, a hazardous venture before the days of asepsis, soon established its great value. Such results as Harvey Cushing reports in 1925

on a thousand such operations by himself alone, to say nothing of other thousands done by other surgeons the world over, could never have been attained without the preliminary investigations in which the work of Charcot and his school were fundamental.

From the day of his appointment as professor of nervous diseases until his death his annual courses of lectures and clinics at the Salpêtrière were attended by students of medicine from every land; and it may truly be said that there are few teachers of eminence at present living who have not drawn inspiration from his model clinics.

It was in the spring of 1883 that I had the good fortune to be numbered among his students, and it may be of interest if I relate some details of his work. On three mornings of the week, at half-past nine o'clock promptly, he would come to the dispensary of the hospital and seat himself behind a little railing, which separated him on one side from the patients, and on the other from the crowd of students, many of them foreigners, and all graduates in medicine. His assistants would then bring the patients, one by one, from the adjoining waiting-room. A concise history would be given of the case. Then Charcot would ask some searching questions, would elicit some unexpected symptom, would discover some physical appearance that others had not noticed, would examine the patient himself if there was any special point of interest, and then would quickly state his diagnosis, supporting the position taken, or discuss the probabilities or difficulties of diagnosis, often with interesting comments or some reference to the literature, and finishing occasionally with some therapeutic suggestion.

On Tuesdays the public clinic of the week was held in a large building within the hospital yard. The room was arranged with a stage and footlights, and tiers of seats arose from the front level to quite a height at the rear of the room. As many as six hundred students could be seated, and the place was always full. After the audience had gathered, dark shutters were closed at the windows, the footlights were turned up, and the clinic began. Charcot, attended by a number of his assistants, entered and seated himself on one side of the stage, at a little table,

looking not at his audience, but across the stage. Then the patient or patients, for he usually showed a number at once, either to display variations of one disease or to draw contrasts with other diseases, were placed before the footlights, and sometimes, when a particular feature had to be demonstrated, a calcium light was turned on the patient, whose figure was the chief point of light in the darkness, could always be perfectly seen by all. In a distinct but not loud voice, with a slowness of speech that led to a clear understanding—especially by the foreign element in his audience—Charcot would describe the case, call attention to special symptoms, show the peculiarities of spasm or deformity or tremor or gait, compare them with other similar forms for the purpose of differentiation, and sum up the diagnosis. Then, dismissing the patient, he would begin to describe the lesion, and at once on the screen at the opposite side of the stage the magic lantern would flash out the picture he wished to show, either in the form of a sketch made from nature, or an actual slide of a section of the spinal cord, or a part of the brain magnified by the microscope, or a photograph of some unusual clinical type of the disease in question. Thus, symptomatology, diagnosis, and pathology were presented in orderly succession in a manner most clear and forcible, and with an effect that was most instructive and impressive. It has been said that the whole clinic was arranged for theatrical effect. I believe that it was the only manner in which it was possible to demonstrate in a clear light to the large audience all the features, clinical and pathological, of the subject. But grant that it was theatrical; it left on the mind of the student a series of mental pictures of patients and of lesions which no amount of private study could possibly produce. It taught men so that they could not fail to remember; and what higher result can a teacher wish?

And the students appreciated it. They gathered enthusiasm from Charcot's evident earnestness. No teacher has ever had such a constant company of devoted young men about him, eager to share in his studies, to be directed in their investigations, to be considered a part of his working force. He had the faculty of engaging their interest, of stimulating their investigations, of

directing their work. He supplied them with material and showed them how to use it. As a result, there appeared in France from 1882 till his death in 1893 an enormous number of clinical and pathological researches in the department of neurology, all of them inspired by Charcot, though carried out by some of his pupils. He built up the school of the Salpêtrière. One can hardly name a man of eminence in medicine in France since his time who has not been glad to call himself a pupil of Charcot. And when, in addition to the long list of his own articles—his collected works will fill fifteen large volumes—the articles are collected on which his name appears as collaborator, there is presented a mass of medical literature far surpassing that of any other medical school in the world.

Bourneville has said that Charcot was not fond of writing or of publication, that it required two years of constant urging to induce him to publish the first two volumes of his lectures, and that he never would have given to the world many of his articles, had not some one of his assistants attended to the details of publication. Gilles de la Tourette says that in his late years all of Charcot's clinical lectures were carefully prepared in writing, so that at the close of the lecture he merely handed his notes to one of his assistants, who was then able to arrange them with the histories of the cases for publication.

It would take too much time to specify his various books, lectures, and articles published between 1875 and 1893. I cannot, however, omit to mention his "Localisations des Maladies Cérébrales" and his "Localisations des Maladies de la Moelle épinière," which did much to establish on a firm basis the doctrine of the localisation of cerebral and spinal functions, and which appeared in the *Revue de Médecine* from 1879 to 1889, and his numerous valuable papers on the pathology of spinal lesions. To him we owe the discovery of amyotrophic lateral sclerosis, which has been called Charcot's disease and his analysis of aphasic conditions is still of great service to clinicians. It should also be known that, with Vulpian and Brown-Sequard, he founded the *Archives de Physiologie* in 1869, the *Progrès Médical* in 1873, the *Revue mensuelle de Médecine et de Chirurgie* in

1877, now known as the *Revue de Médecine*, the *Archives de Neurologie* in 1880, and the *Nouvelle Iconographie de la Salpêtrière* in 1888. To all these he continued to contribute from time to time until his death. It is said that the sale of his three volumes of lectures published from 1872 to 1880 surpassed that of any other medical work ever published. These lectures have been translated into German, English, Spanish, Italian, Hungarian, and Russian.

Charcot's contribution to the study of functional nervous diseases was no less important than that to organic affections. He was the first to make systematic investigations of hysteria—to analyze its symptoms, to trace them to their mental basis and to ascribe them to suggestion either hypnotic or auto-suggestive. Many of his lectures are devoted to this subject, as will be more fully shown by Dr. Morton Prince on this occasion.

Public recognition of his abilities and eminence was not wanting. At his death he had been president of all the chief medical societies in Paris, and was a corresponding member of numerous societies in every city on the continent of Europe, of the New York Neurological Society, and of the College of Physicians of Philadelphia. He was made a member of the Institute of France in 1883, and commander of the Legion of Honor in 1892. It may be justly said that France honored herself by conferring honors upon him, for there are few Frenchmen who did as much as he to support the waning French authority in matters of science or to preserve the fading reputation of the French school of medicine. Not medicine alone, but French prestige as well, had reason to regret his untimely demise.

It remains to allude to his personal characteristics. Charcot was a man of great dignity, of calm repose, of even temper, of slow thought and utterance, but of much reserve power. In appearance like Napoleon, and in manner reserved and observant, he was not the type of man to be popular. Yet his dignity was one that was felt to be appropriate to a man of great power, and was never assumed. With patients suffering from trifling affections he showed no sympathy, possibly little interest. With patients whose diseases were grave, or obscure, or of rare type,

he was kind, attentive, interested, and was ready to spend valuable time in most careful investigation. Of this I am assured by private patients of my own who had been under his care, and who would never have come away with such kindly feeling had they not experienced thoughtful attention at his hands. His relation to his pupils was also one of mutual interest and affection. He was never familiar with them, yet he always respected and sought their opinions, was never autocratic in the direction of their work, and was always the subject of their devoted admiration and respect.

Without characteristics of many kinds of the noblest type, no man could have kept about him such a number of able medical workers, all loyal to him in the midst of their labors.

His domestic life was a delightful one. He was married early in life to a lady of considerable wealth, who was enthusiastic in his work, and by whose aid many scientific undertakings, otherwise impossible, were carried out. He had two children, one a son whom it was his fond desire to see succeeding as a physician, but who preferred the more adventuresome life of an Arctic explorer and who led an expedition to the south pole. Their homes—he had a fine country place at Neuilly, as well as a great apartment on the Boulevard St. Germain—were superb in every appointment, and contained many treasures of art; for the artistic sense was one which he delighted to indulge. He was a designer, a painter on porcelain and in oils. The tiles in his study mantel and the ceiling of one of his salons were painted by his own hand. Many of the drawings displayed at his lectures and published in his books were made by himself. He delighted in gathering about him curios of every kind. He cared less for music than for painting, and always preferred the classic and Italian schools to Wagner, showing himself thoroughly French in this respect. His house was open every Monday evening to his friends and pupils, and a considerable company was always glad to gather about him to enjoy his hospitality and to profit by the interesting discussions which went on.

Like every man of eminence, Charcot had his enemies, critics in science, rivals in medicine. Yet, after all their criticism is

exhausted, we must admit that Charcot remains the greatest French physician since Trousseau, the greatest ornament of the medical profession of the nineteenth century.

It was therefore entirely fitting that this year France should honor his memory by celebrating the centenary of his birth. This was done by the French government, which, unlike that of many other countries, pays a just regard to scientific achievement. The government extended invitations to other countries to partake in this celebration and eighteen other countries responded, our own among the number, by sending official delegates, of whom I was one.

The President of the French Republic was present at the great official meeting in the enormous salon of the Sorbonne. The Minister of Education presided. The Garde République led by its fine band stood guard in the hall and after the formal eulogy of Charcot pronounced by his most distinguished pupil and successor in his chair, Babinski, the foreign delegates presented their credentials and were represented in the eloquent addresses by Marinesko of Bucharest and Winkler of Amsterdam.

On the following day Pierre Marie, the successor of Babinski in the professorship, gave a most interesting account of Charcot's life and work before the Academy of Medicine.

The formal meetings of the Society of Neurology held during two days, with two sessions each day, were devoted to the review and study of Charcot's disease amyotrophic lateral sclerosis and to migraine, a subject on which he had made important studies.

A formal dinner, at which 700 sat down and at which many eloquent speeches were made, was ended by a most touching address of thanks made by Commander Charcot, his son, who had brought honor to his country, and holds a high place in the French navy.

On the final day the municipality of Paris gave a formal reception at the Hotel de Ville, whose gorgeous salons were all thrown open. At this we were entertained by some of the singers of the opera and given a very elaborate feast.

Finally, Commander Charcot and his sister opened the country residence of Charcot at Neuilly, just off the Bois de Boulogne

to the foreign delegates and not only showed us the salons and library of their father, which remain much as he left them, but presented us with his photograph and a copy of some of his pen and ink sketches.

Souvenirs of the celebration in the form of photographs of the Salpêtrière and of the men who have made its name famous, and a fine bronze medal of Charcot were presented by the Society of Neurology.

It was a most dignified and worthy celebration and tribute by France to one who was the leading physician in France of the nineteenth century.

EXHIBIT AT THE ACADEMY

The books and pamphlets were arranged in show cases grouped in the manner recorded below. The effect of the exhibit was greatly enhanced by the wall decoration of enlarged reproductions of portraits and busts taken from *Aesculape* for May, 1925, which were presented by Doctors Dana and McKendree.

WORKS BY CHARCOT

Études pour servir à l'histoire de l'affection decrite sous les noms de goutte asthénique primitive, nodosités des jointures, rhumatisme articulaire chronique forme primitive, etc. Paris thèse, 1853.

Sur une forme particulière d'atrophie musculaire progressive . . . by Charcot and P. Marie. Revue de médecine, 1886, VI. (Containing description of "Charcot's Disease.")

Article by Charcot and Robin in: Comptes rendus de la Société de biologie. 1853. (Containing remarks on Charcot's crystals.)

Leçons sur les maladies du système nerveux faites à la Salpêtrière. . . . Paris, 1872-3; 1875-77, 1880-85; 1884; 1877-87; 1892-93; 1892-94. 12 vols.

Leçons du mardi à la Salpêtrière. 2 vols. Paris, 1887-90.

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Lectures on diseases of the nervous system. By Comegys, 1881.

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Neue vorlesungen über die Krankheiten des Nervensystems. . . . Ausgabe von Sigmund Freud. 1886.

Lectures on the localization of cerebral and spinal diseases. . . . by W. B. Hadden. 1883.

Trans. by E. P. Fowler. 1878.

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Leçons cliniques sur les maladies des vieillards et les maladies chroniques. Paris, 1867.

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On the treatment by suspension of locomotor ataxia and some other spinal affections. . . . London, 1889.

De l'emploi de l'électricité statique en médecine. Repr: Rev. de médecine, 1881.

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CHARCOT AS EDITOR

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Picture of La Salpêtrière in: Marthe, H. La Salpêtrière sous l'ancien régime.